

AMENDMENTS TO THE CLAIMS

1. (Original) A packet transmission method for a communication system, the method comprising the steps of:

a) receiving Quality of Service (QoS) information and data rate information from an upper layer;

b) receiving channel status information of wireless stations from a lower layer;

c) creating an aggregation packet according to the information received in steps (a) and (b);

and

d) transmitting the created aggregation packet to a Media Access Control (MAC) layer.

2. (Original) The method as set forth in claim 1, wherein step c) includes the steps of:

c1) constructing packets stored in a Queue in a form of a parameter according to channel status information of wireless stations and said data rate information;

c2) creating grouped packets using the constructed packets denoted by parameters; and

c3) creating the aggregation packet according to a predetermined aggregation method.

3. (Original) The method as set forth in claim 2, wherein the packets having the same QoS information are grouped in one packet group.

4. (Original) The method as set forth in claim 2, wherein the predetermined aggregation method is set to a multicast aggregation method for packets for use in the wireless stations each having a reliable wireless channel status.

5. (Original) The method as set forth in claim 1, wherein the aggregation packet includes a control information field and a plurality of data fields,

wherein the control information field contains multicast address information and number information of aggregated data and each of the data fields includes destination address information, data length information, and data.

6. (Original) A packet transmission apparatus for a communication system, comprising:
an upper layer device for providing Quality of Service (QoS) information and data rate information;

a lower layer device for providing channel status information of wireless stations; and
an aggregation module for creating an aggregation packet according to the information received from the upper and lower layers, and transmitting the created aggregation packet to a lower layer.

7. (Original) The apparatus as set forth in claim 6, wherein the aggregation module includes:
a packet analyzer for constructing packets stored in a Queue in the form of a parameter according to channel status information of wireless stations and data rate information;

an aggregation analyzer for creating grouped packets using the constructed packets denoted by parameters and determining a multicast aggregation or a unicast aggregation according to a predetermined aggregation method; and

an aggregation packet generator for creating a multicast aggregation packet or a unicast aggregation packet according to the determination of the aggregation analyzer.

8. (Original) The apparatus as set forth in claim 7, wherein the packets having the same QoS information are grouped in one packet group.

9. (Original) The apparatus as set forth in claim 6, wherein the predetermined aggregation method is set to a multicast aggregation method for packets for use in wireless stations each having a reliable wireless channel status.

10. (Original) The apparatus as set forth in claim 6, wherein the aggregation packet includes a control information field and a plurality of data fields,

wherein the control information field includes multicast address information and number information of aggregated data and each of the data fields contains destination address information,

data length information, and data.

11. (New) A data aggregation method for a wireless communication system, comprising:
collecting at least two data packets each having a data length; and
creating an aggregation packet from the at least two data packets, the aggregation packet
including information about the data length of each of the at least two data packets.

12. (New) The data aggregation method of claim 11, further comprising adding a header
to the aggregation packet, the header including a destination address of the aggregation packet.

13. (New) The data aggregation method of claim 11, wherein the aggregation packet
includes a data section corresponding to each data packet, said data section preceding the
corresponding data packet.

14. (New) The data aggregation method of claim 13, wherein information about the data
length of a data packet is included in the data section of a corresponding data packet.

15. (New) The data aggregation method of claim 14, wherein a destination address of a
data packet is included in the data section of a corresponding data packet.

16. (New) The data aggregation method of claim 15, wherein a destination address of one
of the at least two data packets is different from a destination address of another of the at least
two data packets.

17. (New) The data aggregation method of claim 15, wherein a destination address of one
of the at least two data packets is the same as a destination address of another of the at least two
data packets.

18. (New) The data aggregation method of claim 17, further comprising adding a header

to the aggregation packet, the header including a destination address of the aggregation packet.

19. (New) The data aggregation method of claim 18, wherein the destination address of the aggregation packet is the same as the destination address of the at least two data packets.